MOVING TOWARDS A HOLISTIC APPROACH IN HEALTH POLICYMAKING: EVALUATING THE ADOPTION OF THE "HEALTH IN ALL POLICIES" MODEL IN THE UNITED STATES

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A capstone project submitted for
Graduation with University Honors

December 4, 2019

University Honors
University of California, Riverside

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Abstract

An extensive body of interdisciplinary research has evidenced that social factors have a significant causal impact on health. While individual behavior and genetics certainly affect health, their effects are minimal compared to that of social determinants. Based on these findings, public health policies in many OECD nations have shifted their foci towards more holistic approaches to improving population health, such as the "Health in All Policies" (HiAP) model. While the United States recognizes the importance of such methods, it has yet to fully put the idea into practice. At the same time, the US has substantially worse health outcomes and greater health inequality than other rich democracies. Therefore, with the goal of improving public health policies, this study aims to determine if the US can reduce its negative health trends by adopting the HiAP model. Two methods will be employed. First, a measurement standard for HiAP will be formulated based on existing literature and how it was successfully implemented in several other OECD nations. Second, this standard will be applied to evaluate the efficacy of the policies in the various US states that have adopted approaches consistent with HiAP. Evidence indicates that the HiAP approach is promising for improving population health. The states' efforts have also been successful, but only within their jurisdictional boundaries. Nevertheless, their results inform a potential path towards applying HiAP in the US as a whole. The next step is to determine how to overcome the cultural and political barriers that prevent HiAP and its benefits from being implemented in other states and at the federal level.

Introduction

Amongst the developed nations of the world, the United States has been lagging behind in terms of improving its population health outcomes. Although most health statistics still trend in a positive direction, one can argue that the United States can attain better results based on its myriad resources and assets. An area of focus that the government has historically neglected is the social determinants of health. The issue has come to the attention of public health experts in recent decades, but targeted interventions have been insufficient, as indicated by a lack of significant improvement in population health outcomes. The root of the problem lies not in the conceptual principles guiding action, but rather in the scope of public health activity. In the current bureaucratic system, the institution is limited to the powers it is delegated, which only pertain to matters concerning health. However, the social determinants of health encompass a wide range of factors that extend far beyond that. Thus, among other things, collaboration between public health and other sectors of government is needed for better population health outcomes. To achieve this end, a more holistic approach to health policymaking is needed. The "Health in All Policies" model is one such framework that has been utilized and proven to be effective in other jurisdictions internationally. Thus, its implementation in the United States should be considered.

Despite spending the most on healthcare per capita amongst all OECD nations (Organisation for Economic Co-operation and Development, 2017, p. 2), the health outcomes of the United States are worse than the OECD average (Woolf & Aron, 2013). Life expectancy has stagnated since 2009 (78.5 years), with the most recent data from 2015 and 2016 (78.7 and 78.6, respectively) showing a modest decline from 2014 (78.9 years) (Centers for Disease Control and Prevention, n.d.). In 1970, life expectancy in the United States was approximately 1 year above the OECD average, but it has now dropped to nearly 2 years below the average (OECD, 2017, p.

49). Rates of obesity and suicide have also increased and the United States continues to rank below the OECD average in these categories, with its worst ratings at second to last in both adolescent and adult obesity (OECD, 2017, p. 61, 81, 83). While these negative trends do not persist across all health-relevant outcome indicators in the United States, the statistics suggest that the country is faced with public health issues that require appropriate political attention and response. Consequently, the data raise questions concerning the root of these health deficits and how they can be adequately addressed. This paper seeks to inform the development of appropriate policies in the United States that might reduce or eliminate these issues entirely.

Although identifying the origin of these various problems can be a daunting task, a wealth of research has provided some direction. While many factors lead to conditions that are detrimental to population health, their origins need not lie within the traditional scope of public health. The World Health Organization has labelled these broader influences as the social determinants of health, which it defines as the "conditions in which people are born, grow, live, work and age" ("About Social Determinants of Health", 2017). These determinants involve social, economic, political, cultural, environmental, and other factors. According to the fundamental cause theory, social resources such as income and education are key factors in determining health outcomes (Link & Phelan, 1995). The social gradient in health is derived from this concept, and it states that positive health outcomes are inversely related to high socioeconomic standing. This relationship exists because social factors modify the mechanisms through which health outcomes are produced; the lack thereof places one in a disparaged and disadvantaged position.

To illustrate how the social determinants of health operate, imagine a theoretical scenario in which a person was born into a family in the bottom 20% of the income distribution. This individual was able to attend school from a young age, but their parents made them work after they

graduated high school because their family needed the extra income. They started working a stressful full-time minimum wage job without employment benefits, but then they were suddenly afflicted with a rare disease. The individual's low cost insurance did not cover the treatment, so they forewent it. If this individual was born into better circumstances where adverse social determinants were not present, perhaps they would have been able to treat the condition and live a more comfortable and healthier life. However, such an ideal outcome was not possible due to the effects of the social determinants of health. In a capitalistic society such as the United States, situations like this occur frequently despite government assistance. Based on data from the CDC, there is no doubt that population demographics, which constitute a few of the social determinants of health, have an effect on public health. Minorities, those with lower educational attainment, the uninsured, and the impoverished were more likely to delay or skip receiving care entirely because they lack the resources required for access to adequate medical care (United States, 2016). Thus, the social determinants of health are evidently an important consideration when it comes to population health.

However, if social determinants are the root of the problem, then a glaring discrepancy exists when observing the health outcomes of the United States. The theory of the social gradient in health states that as one's social, material, and other resources increase, their health outcomes should also improve. Yet, the United States has worse health outcomes than the majority of OECD nations despite having more resources than they do. When one controls for the countries who are part of the organization, but are not rich and/or democratic, the relative rank of the United States is even worse.

Inequality is the primary explanation for this supposed inconsistency. While those at the upper echelons of the socioeconomic spectrum have the best health outcomes on average in the

United States, it is a world of difference for those at the bottom. This is due to persistent disparities between groups with different socioeconomic statuses (Adler et al. 1994; Carpiano, Link, & Phelan 2008), race-ethnicities (Williams & Sternthal, 2010; Williams & Mohammed, 2013; Phelan & Link, 2015), genders (Courtenay, 2000), social environments (Robert, 1999; House, Landis, & Umberson, 1988; Umberson & Montez, 2010), and more. According to these sources, if an individual is marginalized in one or more of these variables, their opportunities become more restricted and their exposure to risk is increased. Cumulative advantage/disadvantage theory suggests that the effects of these negative consequences accumulate over time and ultimately relegate individuals to marginalized roles in society, thereby perpetuating the cycle of health inequality and other disadvantages within and across generations (DiPrete & Eirich, 2006; Ross & Wu, 1996). The inverse is true for those who are more privileged than not in these categories.

For example, a study conducted by Lopoo & DeLeire (2014) found that children's economic success depended on their parents' position on the income distribution and their family structure; children born into poor families were less economically mobile, and the same was true for children born into single-parent families, regardless of their parents' income. Essentially, the majority of poor children were more likely to stay poor when they became adults. This is not to suggest that people are confined to an inevitable outcome, but rather that one's social circumstances can affect their lifestyle and wellbeing, therefore impacting their ability to achieve positive health outcomes. Thus, the United States may have a lot of resources, but the benefits are not equitably allocated. Everyone may share in sowing the seeds, but only the socioeconomically privileged are able to reap the harvest. Hence, health outcomes improve for those who are able to afford it while everyone else lags behind.

As shown, findings indicate that the social determinants of health have a massive influence on population health. The problems and inequities caused by these factors are many, but Quesnel-Vallée, & Jenkins (2010) evidence that public policy is the meta-mechanism that can change the distribution of the social determinants of health, as well as their effects on people. Thus, if the United States adopts an approach consistent with this line of thinking, the nation can hypothetically decrease the prevalence and negative impacts of the social determinants of health, thereby reducing poor health outcomes in the country and closing health gaps between itself and other nations.

Is "Health in All Policies" the Solution for the United States?

With the social determinants of health identified as the basis of the problem, the United States can begin to develop its course of action. In the past, public health policies focused on addressing acute medical conditions and the immediate and pressing problems of health crises. However, after entering an era of globalization, medical innovation, and increasing longevity, the system encountered many new problems, from rising health inequality to increasing chronic illnesses (Rosen et al., 2015). Addressing the symptoms of these issues provide short term relief, but the problem only reproduces itself if its source is not eliminated. Thus, these rising prominent issues demand immediate action, but strategies of the past will not be sufficient; new innovative methodology must be developed in response (Frieden, 2004). This is not to say that traditional approaches like disease prevention and health education are less important, but additional efforts are necessary. The United States has adapted to these changes over time by implementing more holistic approaches to address the social determinants of health.

In 2011, the United States shifted into a transitional phase by embracing its own form of a globally-utilized public health framework known as "Health in All Policies" (HiAP). The World

Health Organization (2013) defines HiAP as "an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity". Similarly, the CDC states that this strategy "integrates and articulates health considerations into policymaking across sectors" because "health is created by a multitude of factors beyond healthcare and, in many cases, beyond the scope of traditional public health activities" (CDC, n.d.). Essentially, HiAP seeks to address factors that affect health but are beyond the standard reach of public health by collaborating with all other sectors of government. Some examples of collaborators include agencies within the departments of transportation, housing, education, public safety, environmental protection, and more. The model operates under the principle that health is affected by all policy actions, and therefore policy must be harnessed and utilized in a way that minimizes health detriments and maximizes benefits. Through such reasoning, the framework directly addresses the social determinants of health, thus resolving the shortcomings of current health policies and public health approaches in the United States. As long as the social determinants of health remain a pressing issue, the apparent solution will be to create policies that can reduce their presence or eliminate them completely. Such a feat can be achieved through the HiAP's methods of cross-sectoral strategizing and cooperation.

Under the guidance of the HiAP framework, the United States initiated the policymaking process at the federal level. Following Section 4001 of the Patient Protection and Affordable Care Act (2010), Executive Order 13544 (2010) was signed by President Obama and codified into law under 42 U.S.C §300u-10 to establish the National Prevention, Health Promotion and Public Health Council, which is also known as the National Prevention Council (NPC). The NPC consists of 20 members, all of which are representatives from various government departments and

agencies, and is headed by the US Surgeon General. As a single cohesive entity, these individuals work together to ensure that public health priorities and goals are acknowledged and considered within all policy areas without the transgression of political or authoritative boundaries.

In their first report regarding their HiAP framework, the National Prevention Strategy (NPS), the NPC declared four areas of focus and seven health priorities (National Prevention Council, 2011). Each of these foci contain numerous plans for action that are consistent with HiAP; they seek to improve population health by transforming the everyday behaviors, environments, and lives of people through all types of policy (Figure 1). However, certain recommendations in these sections are irrelevant to HiAP because they utilize traditional public health approaches or are specific to the healthcare system; they do not address the social determinants of health. Due to the Government Reports Elimination Act of 2014, the last publicly available annual update from the NPC is from 2014. Nevertheless, the document still provides valuable information concerning the progress that the agency has made and the impact of HiAP in the United States. The 2014 report provides detailed information on the actions and initiatives of all the government entities involved in the NPC, as well as on the efforts of smaller jurisdictions and community-based organizations.

Figure 1 - United States: National Prevention Strategy

1. 4 focus areas and recommendations for action:
    a. Healthy and Safe Community Environments:
        i. Improve the environment
        ii. Address issues relating to inadequate housing
        iii. Strengthen public health departments in smaller jurisdictions
        iv. Acknowledge health impacts of policymaking where applicable
        v. Encourage cross-sector collaboration in community planning and design
        vi. Expand information exchange systems between sectors*
        vii. Implement evidence-based strategies and conduct research where evidence is lacking
        viii. Maintain a skilled and diverse prevention workforce
    b. Clinical and Community Preventive Services:
        i. Improve cardiovascular health through lifestyle interventions

ii. Increase affordability of care*
iii. Expand use of interoperable information technology*
iv. Implement community-based preventive services
v. Reduce barriers to healthcare access
vi. Promote integrated healthcare (by increasing information exchange between medical professionals from different fields)*

c. Empowered People:
i. Provide people with information to make healthy choices
ii. Promote positive social interactions and healthy decision making
iii. Empower people and communities to establish prevention policies and programs
iv. Increase and improve education and employment opportunities

d. Elimination of Health Disparities:
i. Focus on communities with greatest risk
ii. Reduce disparities in quality of care
iii. Increase the capacity of the prevention workforce to address disparities
iv. Support research that facilitates the elimination of health disparities
v. Collect data to better address disparities

2. Using the strategies outlined above, the NPS seeks to address 7 health priorities:
a. Tobacco Free Living
b. Preventing Drug Abuse and Excessive Alcohol Use
c. Healthy Eating
d. Active Living
e. Injury and Violence Free Living
f. Reproductive and Sexual Health
g. Mental and Emotional Well-being

*Components not directly related to Health in All Policies are marked by an asterisk.
Source: National Prevention Council. (2011, June). National Prevention Strategy: America's Plan For Better Health and Wellness. Retrieved from https://www.hhs.gov/sites/default/files/disease- prevention-wellness-report.pdf

Elaborating upon all the work of all these groups would expand beyond the scope of this research, but a few examples should demonstrate what the establishment of the NPC has led to. The Department of Health and Human Services launched “Birth to 5: Watch me Thrive!” in conjunction with the Department of Education to facilitate healthy early childhood development (NPC, 2014, p. 16). In a similar vein, the Department of Agriculture updated standards for school lunches such that children are given healthier food options (NPC, 2014, p. 17-18). The Department of Transportation has created programs that further driver and pedestrian safety (NPC, 2014, p. 23-24). As for smaller jurisdictions, many of them have begun to adopt HiAP models of their own and engage their communities (NPC, 2014, p. 56). Community organizations like the Philadelphia Corporation for Aging are also using HiAP approaches to facilitate their mission of helping the elderly stay active and healthy (NPC, 2014, p. 58). All these NPS-related achievements indicate

that the HiAP framework has inspired widespread public innovation and action since its formation. The two themes that are constantly echoed throughout the entire report are the promotion of American health through holistic prevention efforts and the cooperation between government entities at all levels and public stakeholders. The former addresses the roots of the social determinants of health while the latter ensures that all relevant parties are involved in the decision-making process. The NPS cannot operate without both of these components in place. Through the establishment of the National Prevention Council, the United States has taken its first step towards creating a healthier nation for all.

However, these words and actions are not mere anecdotes; they are supported by statistical proof. Based on the report, NPS progress indicators show that these changes and similar ones have had a modest positive effect on population health. Most health outcomes have improved, although some categories have shown slight regression (NPC, 2014, p. 69-77). For example, the percentage of adolescents who have smoked in the past month has decreased from 19.5% (2009) to 15.7% (2013), while the rate of chronic lower respiratory disease mortality has increased from 41.4 deaths per 100,000 to 42.5 deaths per 100,000 (NPC, 2014, p. 70, 73). While this data should be treated with caution because of the short time frame from which they were extracted, recent data show that positive trends have continued. In 2017, 8.8% of adolescents smoked in the past month, and deaths from chronic lower respiratory diseases have fallen to 40.9 per 100,000 (CDC Youth Risk Behavior Survey, 2017; National Vital Statistics System, 2019). Note that the latter statistic has fluctuated over the years, but a slight decrease is still present from a cross-sectional perspective. While it cannot be established that the NPS is responsible for the improvements demonstrated in these recent results due to a lack of up-to-date reports from the NPC, the possibility remains, and it cannot be ignored. In order to determine if the National Prevention Strategy is the solution that

the United States needs to resolve its health disparities, one must turn to other cases of HiAP and analyze their efforts. Such work will reveal the efficacy and efficiency of HiAP, as well as inform the United States about future directions.

"Health in All Policies" in US States

Although there are no up-to-date HiAP reports for the United States as a whole, individual states have independently adopted legislation consistent with the HiAP approach. This is the best place to start observations if the goal is comparability. If state efforts prove to be effective, then they can set an example for the rest of their nation. Although partisan divisions and the federalist political structure of the United States complicate any widespread implementation of HiAP, sufficient evidence should push the nation towards one direction or the other. To begin, one can first look at California. The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 was amended in 2008 to include a chapter regarding the creation of a Strategic Growth Council (SGC). Like the NPC, the SGC consists of decision makers from various state and local level government agencies and public stakeholders. The original purpose of the entity was to address climate change and to promote sustainable community development, both of which are important for HiAP, but former Governor Schwarzenegger transformed it into a fully-fledged HiAP policy plan by forming a Health in All Policies Task Force (HiAPCTF) through Cal. Exec. Order S-04-10 (2010). Following that, the state added Cal. Health and Safety Code § 131019.5 to its code of law in 2012 through an amendment passed under Cal. A.B. 1467 (2012). The legislation established the Office of Health Equity under the California State Department of Public Health to assist the HiAPCTF in its efforts to holistically address the social determinants of health and their effects within the state. Thus, over the span of several years,

California was able to establish a fully functioning HiAP framework under the oversight of the Strategic Growth Council.

As mentioned in its vision statement, the mission of California's HiAP framework is to promote and create healthier communities in California for all to enjoy. Other SGC programs such as affordable housing and sustainable communities address areas relating to HiAP, but their goals are limited in reach, so they will not be discussed in detail. Although the HiAPCTF aims to be as holistic in its efforts as possible by addressing a wide range of issues, the state has determined six primary areas to focus its attention on (Figure 2). However, the main responsibility of the HiAPCTF is to facilitate external efforts towards the successful implementation of HiAP or other related strategies addressing the social determinants of health, even if such efforts are being conducted outside of California (Health in All Policies Task Force, n.d.-b, p. 2). As a result, while the program does in fact address these policy areas, it serves more as a proxy than a direct decision-maker. This makes it difficult to gauge the impact of their actions in quantitative terms. Nevertheless, one can still monitor the agency's activities and make a qualitative judgement based on the results.

For example, HiAPCTF created the Government Alliance on Race and Equity to educate California state departments and agencies about racial equity concepts and implementation techniques. In doing so, it aims to inspire real change in government efforts; the HiAPCTF encourages employees to be more aware of issues like racial equity so that they can incorporate solutions into their work. In March 2019, the result of this education demonstrated itself in practice when the California Coastal Commission adopted a new environmental policy that ensures equitable access to clean coastal environments for those disproportionately affected by pollution (Health in All Policies Task Force, n.d.-a, p. 3). Furthermore, the commission promised to be more

inclusive and diverse in all their future endeavors. Through this type of action, the HiAPCTF was able to address two of their focus areas: “Healthy Public Policy” and “Parks, Urban Greening, and Places to be Active”. They were also able to educate government employees about how to be more inclusive and more aware about their actions, therefore paving the path towards a more equitable future. This kind of impact cannot be translated into numerical terms, but it is evident that the HiAPCTF is effectively addressing the social determinants of health by serving as a moderator and facilitator for other government entities.

Figure 2 - California: Strategic Growth Council & Health in All Policies Task Force

1. 6 focus areas and aspirational goals:
    a. Healthy Public Policy: “California's decision makers are informed about the health consequences of various policy options during the policy development process.”
    b. Community Safety through Violence Prevention: “Every California resident is able to live and be active in their communities without fear of violence or crime.”
    c. Parks, Urban Greening, and Places to be Active: “All Californians have access to places to be active, including parks, green space, and healthy tree canopy.”
    d. Active Transportation: “All residents have the option to safely walk, bicycle, or take public transit to school, work, and essential destinations.”
    e. Healthy Food: “Every California resident has access to healthy, affordable foods at school, at work, and in their neighborhoods.”
    f. Healthy Housing and Indoor Spaces: “All residents live in safe, healthy, and affordable housing.”
2. The Health in All Policies Task Force provides funds, education, and other forms of assistance to local governments in California and community-based groups to encourage active participation and continued efforts towards HiAP goals.

Sources: 1. State of California. (n.d.). HiAP Fact Sheet [PDF file]. Retrieved from http://sgc.ca.gov/programs/hiap/docs/20181025-HiAP-FactSheet.pdf / 2. State of California. (n.d.). HiAP Aspirational Goals. Retrieved from http://sgc.ca.gov/programs/hiap/resources/aspirational-goals.html

Following the efforts of California, Vermont adopted its own HiAP approach through Vermont Exec. Order No. 7-15 (2015). Just like its predecessor, it established its own Health in All Policies Task Force (HiAPVTF) in order to innovate the efforts of its public health department. The foundation and rationale for the HiAPVTF’s work is based on a “Health and Equity Framework” they developed to identify impact areas and important measurement indicators (Vermont Department of Health, 2017). From healthy foods to quality education, all of the items

are important for health outcomes, but the public health department cannot change them alone, so they have enlisted the help of other agencies. By developing individual goals for each of these policy sectors, the task force is able to address important conditions concerning the social determinants of health, therefore promoting health equity and shaping better health outcomes for Vermont's population (Figure 3). The state's main objective is to build and sustain a culture of health through informed and equitable policymaking, and that is what the HiAPVTF is working towards (Vermont Department of Health, 2019).

Figure 3 - Vermont: Health and Equity Framework & Health in All Policies Task Force

1. Health in All Policies Task Force - goals based on the "Health and Equity Framework":
    a. To organize and facilitate collaborative action across all government agencies
    b. To promote the health of the Vermont population
    c. To resolve health inequity issues
    d. To improve resources relating to the social determinants of health
    e. To report important findings to the governor regarding opportunities to integrate health criteria into decision making processes, promising public health practices, and evidence-based policies that can improve the wellness of state employees
2. The agency seeks to achieve these goals by:
    a. Addressing health inequities (especially in vulnerable populations)
    b. Protecting natural resources and agricultural lands
    c. Increasing the availability of affordable housing
    d. Improving air and water quality
    e. Improving government infrastructure
    f. Promoting public health and active lifestyles
    g. Planning sustainable communities
    h. Increasing educational attainment
    i. Meeting state-wide climate change goals
    j. Promoting economic growth through these cross-sectoral policies

Sources: 1. Vermont Department of Health. (2019, April 12). Building A Culture of Health. Retrieved from https://www.healthvermont.gov/about-us/our-vision-mission/building-culture-health / 2. Vermont Department of Health. (2017, January). Health and Equity Framework. Retrieved from https://www.healthvermont.gov/sites/default/files/documents/2017/03/ADM_Determinants_ Equity.pdf / 3. Vermont Health in All Policies Task Force. (2018, January 15). Vermont Health in All Policies 2018 Annual Report. Retrieved from https://www.healthvermont.gov/sites/default/files/documents/pdf/HIAP_annual-report-2018.pdf

Furthermore, the program also conducts research and impact analysis in order to refine policies and achieve optimal outcomes. For example, by identifying the best practices for the agricultural sector, they were able to inform future directions in nutritional education, pesticide use, and more (Vermont Health in All Policies Task Force, 2017). Such work is crucial to creating

the best possible outcomes for communities because optimal policies maximize social benefit, which then results in better health outcomes. The HiAPTF also improves policy through a technique they call “Total Health Expenditure Analysis”. It is a form of cost-benefit analysis that analyzes Vermont's spending across all sectors to see how health-related expenditures affect health outcomes and the social determinants of health. The result of where and how money is spent is important for determining where policies should focus on in order to attain maximum benefit. The HiAPVTF can use these two evidence-based strategies to evaluate their current efforts and prepare for the future. Since HiAP is still in its infancy in Vermont, current measurement indicators show little to no change across all state-wide variables (Vermont Health in All Policies Task Force, 2018). However, as time passes, the HiAPVTF should have sufficient data to evaluate in order to determine their next steps.

Based on these example HiAP efforts in the United States and their theoretical foundation, it is evident that the framework is quite useful for addressing the social determinants of health and improving health outcomes. However, more cases need to be evaluated and further longitudinal data must be collected before a definitive conclusion can be reached. For that purpose, this research will now investigate examples of Health in All Policies in the European Union. The framework is more developed in other nations, so perhaps their efforts can provide some insight for the United States to consider.

“Health in All Policies” in the European Union

In European politics, the European Union (EU) plays a background role in the governments and policies of its constituent states. To join the EU, a nation must sign a treaty agreeing to this supranational influence and various other provisions. The public health sector is no exception to

this. As stated in Article 152 of the Treaty establishing the European Union (1999), “A high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities”. Although this referred to human wellbeing in general when Finland added this section to the treaty during their first EU Presidency in 1999, it has evolved over time to relate to Health in All Policies, especially after their second presidency in 2006. The country who sits as president of the Council of the EU, the legislative body of the entity, determines the priorities of the EU, which then has a bearing on its member states. As a result, when Finland put HiAP as one of its primary policy goals, public health was transformed in the EU. The nation sought to establish the strategy at the EU level such that all the member states and their national, regional, and local governments can be integrated into a single collaborative system where they could all mutually benefit one another. As declared in Finland’s call for action, “Determinants of health, their surveillance and related methodological issues are demanding questions that most naturally, practically and effectively are developed in a European collaboration, not by any single Member State acting alone” (European Union, 2006). In addition to international cooperation, the document suggested that constituent states should also work within their own governments to create and implement their own HiAP strategies.

In 1997, the United Kingdom's Acheson Commission into Inequalities in Health determined that the social determinants of health were a main cause of health inequalities (Raphael & Bryant, 2006). This finding inspired action plans that addressed the social determinants of health, and over time, such initiatives evolved into a synergized HiAP framework. Due to how jurisdictional power is divided in the UK, each of the four constituent countries have their own governments. As a result, they each have their own variant of HiAP. For the purpose of staying concise, this research shall only focus on England. In February 2010, the Marmot Review was

published. The public health document found that those who lived in the poorest English neighborhoods died 7 years earlier on average than those who lived in the richest neighborhoods (Marmot et al., 2002). It also provided proof regarding a social gradient in health, suggesting that social determinants affect the health of all individuals and not just the poorest people in the population (Marmot et al., 2002). Additionally, it emphasized the importance of intergovernmental collaboration and the role of local governments. The critical content of the report inspired the English government to work towards a HiAP approach. Thus, a few months later, the government released a white paper outlining the importance of HiAP, their approach towards implementation, and their goals for the new public health strategy (Secretary of State for Health, 2010).

Following the publication of the Marmot Review and the government's corresponding white paper, new legislations in 2012 opened the path for the establishment of HiAP. First, the "Public Services (Social Value) Act 2012" (2012), required decision-makers to consider "social value", which includes economic, social, environmental wellbeing, and more in their actions. Furthermore, it encouraged the provision of wider public benefits beyond the confines of an agency's standard responsibilities. This meant that agencies like public health could use their funding for purposes beyond their traditional scope of coverage. Second, the "Health and Social Care Act 2012" (2012) created Public Health England, an agency that later divided power to local jurisdictions and subsequently supported their implementation of HiAP. Although there is no formal law establishing the existence of HiAP in England, these two policies and the documents they were derived from affirm that the framework is in present.

Figure 4 - England: The Marmot Review & Local Health in All Policies
1. The Marmot Review: a. Two policy goals: i. Create an enabling society that maximizes individual and community potential

        ii. Ensure social justice, health and sustainability are at the heart of all policies
    b. Six policy objectives, in order of importance:
        i. Giving every child the best start in life
        ii. Enabling all children, young people and adults to maximize their capabilities and have control over their lives
        iii. Creating fair employment and good work for all
        iv. Ensuring a healthy standard of living for all
        v. Creating and developing sustainable places and communities
        vi. Strengthening the role and impact of ill-health prevention.
2. Local Health in All Policies
    a. Public Health England gave autonomy to local jurisdictions and provided them with a HiAP guide based on the Marmot Review
    b. Some local jurisdictions have effectively incorporated HiAP principles in their policy work
3. England is committed to:
    a. Protecting the population from serious health threats
    b. Helping people live longer, healthier and more fulfilling lives
    c. Improving the health of the poorest, fastest
4. England does not have a formally established national HiAP framework. As a result, the nation has not explicitly stated which policy areas it is focusing on. However, the Marmot Review and the actions of municipalities provide some direction in this regard.

Sources: 1. Marmot, M., Goldblatt, P., & Allen, J., et al. (2010, February). Fair Society, Healthy Lives (The Marmot Review) [PDF file]. Retrieved from http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the- marmot-review/fair-society-healthy-lives-full-report-pdf.pdf / 2. Public Health England. (2016, October). Local wellbeing, local growth - Implementing Health in All Policies at a local level: practical examples [PDF file]. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/560593/Health_in_All_Policies_implementation_examples.pdf / 3. Secretary of State for Health. (2010). Healthy lives, healthy people: Our strategy for public health in England. Norwich: Stationery Office (Great Britain).

Since 2012, many local governments in England have implemented HiAP in accordance with their needs. First, the Blackburn with Darwen Borough Council has incorporated HiAP to reduce alcohol harm and improve alcohol-related health outcomes (Public Health England, 2016, p. 8-9). By working with police, volunteers, schools, and more, they have successfully run several campaigns to help alcoholics recover and to prevent others from getting into the habit. The council, its partners, and its participants offer anecdotal evidence concerning the effectiveness of cross-sector collaboration in this specific policy context, but the report also states that there is no empirical evidence to support their claims. Another example is the Collaborative Working Agreement system used by the Medway Council (Public Health England, 2016, p. 17). It was created to promote collaboration between departments for the purpose of reducing health inequalities and improving health. In one case, the council worked jointly with road safety to show

them how their work can impact the built environment of a community, which in turn affects the wellbeing of the individuals and groups situated there. These relationships between departments strengthen and develop over time, and as trust builds, so do efforts addressing the social determinants of health. While the results of these efforts may not necessarily be representative of the England as a whole, it is still useful to observe how HiAP is evolving over time. At the very least, their outcomes can indicate the effectiveness of the HiAP principles upon which their models are based upon.

Out of all the HiAP examples thus far, Finland's framework is perhaps the most developed. Beginning with the North Karelia Project in 1972, the nation is one of the world's first adopters of HiAP. At the time, the nation had the highest mortality rate from cardiovascular disease in the world. As a result, an experimental approach was developed by Finnish officials in conjunction with the World Health Organization. Using initiatives developed through collaborations between government agencies, schools, media sources, the food industry, and more, the region of North Karelia was able to see significant declines in its cardiovascular disease mortality rate (Puska, 2002). From promoting behaviors like healthy eating and exercise to media campaigns, every group worked together and contributed to make the progress happen (Jousilahti, 2014, p. 16). The method behind this regional success was then taken and implemented on the national level. Between 1970 and 1995, the mortality rate from cardiovascular disease amongst males aged 30-64 dropped by "73% in North Karelia and 65% in all Finland" (WHO, 2004). Such a feat was made possible through HiAP's approach of initiating change from within communities.

The key to Finland's success in its HiAP strategy lies in how its policies have evolved over time (Melkas, 2013). From the beginning of the North Karelia Project in 1972 to the present day, its legislation has adapted to changes in social structure and health priorities. In the "Local

Government Act" (1995), Finland's municipalities were given great autonomy and control over various sectors of government, including public health, education, and healthcare. This facilitated upstream decision-making because the voices of the citizens could be more easily heard by policymakers; the distance between them and their representatives were shorter. Furthermore, the national government's consistent support for HiAP in local municipalities through strategic plans and policies like the "Health Care Act" (2010) encourage decision-makers to act towards implementation. The objectives for HiAP are also made clear, with health impact assessments and update reports being created and published frequently to gauge the effectiveness of certain policies. As a result of these efforts, Finland's national data shows that the vast majority of its municipalities have established cross-sector collaboratives within their local governments (TEAviisari, n.d.).

Figure 5 - Finland: Health in All Policies in Local Municipalities

1. Municipalities have been given the autonomy to control important public services like education and public health; decision makers can tailor policies to the needs of their people.
2. Municipalities are guided by national directives for HiAP, which allows for ease of implementation.
3. Finland's HiAP model emphasizes equity and the prevention of health malignancies through collaborations within and between government agencies, organizations, and communities. Under this broad approach, it addresses many of the social determinants of health.
4. Finland's HiAP model is shaped by the following factors and actors:
    a. Intersectoral actions on health
    b. Key health issues
    c. Health determinants
    d. Health inequalities
    e. Governance & policy making
    f. Local, regional & national actors

Sources: 1. Finland. (1995). Local Government Act 1995 (English Translation) [PDF file]. Retrieved from https://www.finlex.fi/en/laki/kaannokset/1995/en19950365_20120325.pdf / 2. Finland. (2010). Health Care Act 2010 (English Translation) [PDF file]. Retrieved from https://www.finlex.fi/en/laki/kaannokset/2010/en20101326_20131293.pdf / 3. Finland. (n.d.). Health in All Policies. Retrieved from https://thl.fi/en/web/health-promotion/health-in-all-policies

In 2015, a news article from the World Health Organization discussed the results of one of Finland's municipal HiAP initiatives. The effort was put into place because 1 in 5 five-year old children in the city of Seinäjoki were overweight or obese (WHO, 2015). Furthermore, schools

and childcare centers were not providing nutritious or healthy foods to the kids. Evidently, more could be done to provide a wider array of healthy options and opportunities to the children. To curb this epidemic, the city's public health agency had to work with the childcare, education, nutrition, recreation and urban planning departments. Each agency worked together to improve health outcomes through their own means, and six years after they started working on the project, the city was able to cut its proportion of obese and overweight children in half (Rotko, 2017, p. 7-8). Once again, interagency and community collaboration led to an improvement in health outcomes.

The investigation of England and Finland's HiAP strategies, as well as the EU-wide push for HiAP implementation, provides further evidence concerning the positive effect of the policy framework. However, a recent evaluation of health outcomes in the region has shown that health inequities and negative determinants of health are still prevalent between and within European countries (Marmot et al., 2012). As a result, there is still a lot of work to be done. Nevertheless, in conjunction with the findings from the United States case studies, there is sufficient evidence to suggest that the policy is effective in promoting and improving several variables that are important for population health and society in general. However, before such a conclusion can be made, a final review of all the presented HiAP examples will be conducted.

Review of "Health in All Policies" Models and Counterarguments

One must now return to the original question posed in this research. Is Health in All Policies the policy framework that the United States needs in order to address the health disparities it faces? More specifically, while the nation as a whole and some of its smaller jurisdictions have adopted Health in All Policies, should all governments at all levels within the United States consider

implementing the approach? Evidence from California, Vermont, England, Finland, and the United States as a whole indicates that the answer to this inquiry is unanimously affirmative. However, there are several issues to consider.

First, a question concerning comparability arises when using these specific cases as points of comparison. Although there are considerable differences between all of them in terms of culture and population demographics, this does not jeopardize the validity of the study. Differences in cultural behavior are significant, but they are offset by the theory of the social determinants of health. Individual actions do matter for health, but they are also shaped by social conditions and other powerful external influences. As a result, if policies exist to address these social variables and educate the general population, then the number of people whose behavior deviates from the norm should be few in number. The situation is similar for differences in demographics. HiAP policies advocate and promote equity in outcomes, regardless of one's identity, and research shows that there are no significant inherent differences between individuals of different races or ethnicities (Phelan, 2005). Therefore, if policy ensures equality across all populations and controls the social aspect of people's actions, then there is no reason to suspect that either of them would refute causality between the surveyed jurisdictions. Thus, findings from one example should be comparable to results from other cases.

Second, it is the long term results that matter in the case of evaluating HiAP. This is because changes to factors such as health equity will not immediately make a population healthier; there is an incubation period before the effects take hold. While HiAP has produced favorable outcomes within most of the surveyed jurisdictions, the statistical and qualitative proof was taken shortly after the framework was implemented. As a result, Finland is the only place where HiAP can be said to have improved health outcomes. Since the North Karelia Project in 1972 and its subsequent

policy developments, Finland's health outcomes have improved significantly over time. For example, as established previously, mortality rate from cardiovascular diseases in men aged 30-64 decreased by 65% in Finland between 1970 and 1995 (WHO, 2004). Life expectancy at birth has jumped from 70.7 years in 1972 to 81.7 years in 2017 (OECD, n.d.). Furthermore, the mortality rate from all noncommunicable diseases has dropped from 448.4 deaths per 100,000 people in 2000 to 349.9 per 100,000 in 2016 (WHO, n.d.). While some may suggest that this reduces the validity of the study, Finland has been established to be comparable to the other cases within the study. Thus, it is rational to deduce that they will all achieve similar outcomes, especially since their HiAP models are similar. Only time will tell what the long term effects of HiAP will be in the other jurisdictions, but for now, Finland will serve as the prime example of effective HiAP implementation.

Third, despite all this evidence showing the beneficial effects of HiAP, theoretical arguments and evidence suggest that its weaknesses may outweigh its strengths. The primary concern lies in barriers to implementation. If one is to aim for cross-sector collaboration, a larger government workforce and a higher budget is necessary. The alternative option would be to reduce or eliminate the functions of certain government departments and agencies. Both options present a political challenge, especially in the context of the United States, where not all taxpayers want a larger government and bureaucrats wish to retain power. Furthermore, HiAP functions on the expectation of assistance and cooperation from other government agencies. If health is not the top priority of government, and other agencies cannot be convinced otherwise, then the framework fails. Additionally, HiAP is a long term strategy that does not offer immediate results. However, in the United States, politicians only have a limited amount of time to prove themselves to voters,

so they opt for policies that offer quicker payoffs. And even if a policymaker were to implement HiAP, political power is allocated such that it may be repealed soon after leave office.

Moreover, there are jurisdictional concerns because different agencies have their own methods of operation (Baum et al., 2014). Whose methods to use, what data to share, and what work to delegate are some examples of important considerations to avoid overstepping boundaries of authority. Lastly, outcomes can be difficult to measure because cross-sectoral efforts entail that multiple agencies are working together, perhaps on the same task, to reach a common goal. Without clear evaluative criteria and measurement indicators, areas of improvement and glaring problems are hard to determine. If all of these concerns are valid, then perhaps HiAP is not as favorable as it may initially seem. However, most of these concerns can be dismissed if comprehensive evidence-based policies are created when establishing the HiAP framework. For example, a detailed budget plan, a clear delegation of powers, and agency-specific impact assessments would eliminate all of the mentioned problems with the exception of those relating to political will, thereby paving the way for proper HiAP implementation.

Conclusion

Compared to countries similar to itself within the OECD, the United States ranks amongst the worst in the category of negative health outcomes. Furthermore, health and social inequities are pervasive in the nation. Research has shown that the social determinants of health may be one of the factors responsible for these results. In response, the United States developed the National Prevention Strategy in 2011 and thus adopted a Health in All Policies approach at the federal level. Its initial efforts were a promising start, but its functions slowed after policies removed its obligation to publicly report its activities. Nevertheless, certain health indicators showed

considerable improvements several years after the policy was implemented. Based on this result, the HiAP framework may be the solution that the United States needs to improve its health outcomes and close the health gaps within its population and between itself and other nations.

After a comprehensive review of HiAP models within 2 US states, California and Vermont, and two European nations, England and Finland, it is evident that the United States is heading in the right direction. Though they varied slightly in some of their specifics, all of these jurisdictions share the same foundation in the holistic policymaking style of HiAP. By working across agencies, organizations, and communities, they were able to complete joint health-related goals in a wide range of policy sectors, from education and early childhood development to urban planning and natural resources, thereby expanding the reach of public health and improving health equity and outcomes along the way. Long term impacts and consequences are still unclear for most of the evaluated jurisdictions, but Finland exemplifies the promise of HiAP. These case studies reveal that collaboration and integrative government is key to future public health endeavors. Thus, the United States and all its constituent jurisdictions should fully embrace the Health in All Policies model for the purpose of progressing towards a healthier nation moving forward. Follow-up studies should address the long-term impacts of the HiAP models discussed in this research and beyond in order to complete a more in-depth evaluation. Future research should investigate the progress and continued development of Health in All Policies around the world. The framework is still very much in its infancy, so its impacts need to be monitored and evaluated for further growth and development.

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